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OF

SEVEN OPERATIONS FOR STONE

IN

Thirty-three Days.

BY

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Report of Seven Operations for Stone in thirty-three days.

BY PAUL F. EVE, M.D.

In the April number of the American Journal of Medical Sciences for 1866, was published a paper which was read before the Nashville Medical Society, sent with the title of "Report of Eight cases of Lithotomy during the War." As published in that periodical, this was altered so as to read "during the past four years." Although the inaccuracy of this unwarrantable change was pointed out, in the fact that while the war did last over four years, yet these eight operations were performed in less than half that period of time, no correction has been made; and in the list of contributors of Original Articles to the American Journal, extensively published for 1866, in both it and Ranking's Half-Yearly Abstract, and its advertising sheets, my name is omitted altogether.

In my letter to Dr. Isaac Hays, Editor of said Journal, it was

stated that the chief object of my article was to ascertain, if possible, the number of cases of stone which the late war exposed, many of which never would have been made known, but for it. Hostilities commenced, as will be remembered, by the attempt of the Star of the West, to throw supplies into Fort Sumpter in Charleston harbor, January 9th, 1861; but in the first paragraph I stated that during my connection with the Southern Army these eight cases were operated on for urinary calculi in the States of Mississippi, Alabama, Georgia, and South Carolina. In looking over my day-book, I find five cases of Lithotomy recorded for 1861, performed that year in Tennessee. So these might justly have been added to the other eight, making thirteen, if my object was alone to boast of the number of operations for stone, within a given period. I left Nashville, February, 1862, and gave the date of my first Lithotomy case while absent May 26th, of that year, and the last October 21st, 1864, being an interval less than two years.

The value of the inquiry into the prevalence of urinary calculi in our country, will be appreciated when it is made known that in the U. S. Army, for the year ending the 30th of June, 1863, no less than 867 cases of gravel and stone were reported; and this too without including the Southern States, then engaged in a struggle for their independence.

I acknowledge that I now take pleasure in being permitted to report seven cases of stone successfully operated upon, within the short period of two or three days over a month, six of them in nineteen days, and all having a speedy recovery, six by the bi-lateral operation, and one by lithotripsy. If I lost three of the eight cases already referred to, during my service in the army, I can now report a successful result in my last nine cases, although fortunately five of them were adults, of which number one was aged. In the last twenty-two cases, of three deaths, one alone can, I think, be attributed to the operation; for in the other two, one an old man died from erysipelas in a hospital, but not of the wound, and the other from imprudence, fainting and falling on the hearth from getting out of bed too soon. The case too, which died, and I am pretty certain from the operation,

as I have candidly confessed, was not the bi-lateral, but the only one in which I ever used the gorget.

CASE I.—*Bi-lateral Operation in a boy four years old—two small Calculi extracted.*

The father of James K. Dunlap brought his little son to me the first of last November, stating he had gravel. They came from near Humboldt, Western District of this State. The patient had been troubled three years of his short life with disturbed micturition. He was recently sounded, and the calculus felt. He is still in pretty fair health, though small for his age, four years.

On Monday, the 4th of this month, the usual bi-lateral operation was performed in the presence of the Medical Class, and two small calculi extracted. The first resembles closely in shape a coffee bean, though larger, having a well defined groove or depression on one of its surfaces ; the other is of a flat ovoid shape, size of a hazle-nut. They have a dark brown color external and yellowish white within. The two together weighed one drachm and one scruple. Their composition is phosphate of lime and magnesia with uric acid in layers. The uric acid externally and the phosphate within, which is just the reverse of the usual order of structure in cystic calculi.

The patient returned home on the fourth day after the operation, and recovered without an unpleasant symptom. He was only a week in Nashville altogether ; his father insisting on carrying him home on his lap by railway.

March 1st, 1867, he wrote to me that his little boy is relieved of all his pain.

CASE II.—*Lithotritry in an adult—Relieved at one sitting, or by one operation.*

Mr. W., of Mississippi, aged 34 years, weighs 220 pounds, is 6 feet 4 inches high, having a chest like a barrel, and is altogether a splendid specimen of the *genus homo*, consulted me in September last for stone in the bladder. With a silver catheter, I pushed what was taken to be a small calculus from its neck.

The patient had been using very freely the waters at the Epperson Springs, in Macon county, of this State, and as he thought with decided advantage. As the diagnosis of the foreign body, small in size, was so favorable, he decided to return, and give this treatment a further trial. At the end of about six weeks he called again, and after due preparation, on the 13th of November, a small stone was caught in the lithotritor, by the first attempt, and easily crushed. Having subsequently explored the bladder several times without finding any foreign substance, and the patient repeatedly assuring me he suffered now no uneasiness whatever in his urinary apparatus, he returned home to Mississippi. Entertaining some doubts as to the permanency of this relief, I addressed two notes to Mr. W., one the 8th of March, but have received no reply.

The following are the brief notes in the history of this case, of course, furnished by the patient himself: he attributes the formation of gravel to the abuse of diuretics. During the summer of 1861, he experienced his first attack of renal gravel passing to the bladder, attended with the usual distressing symptoms of deep-seated pain in the right lumbar region, retraction of the testicle, vomiting, &c.; which were relieved by opiates, and hot hip-baths. In a week he had a similar paroxysm, but then in the left side; and for months they continued to recur at irregular intervals. During 1862, one of these nephritic attacks lasted eight hours, and for which he found a strong tea made of horse-raddish root to relieve him sooner, and better than any internal agent that he tried while suffering acutely from fits of the gravel. In December, the same year, he passed one, size of a coffee grain, *per urethram*. In 1863, another lodged in the bladder, creating great irritation, and producing occasionally bloody urine. His renal symptoms now disappeared, and his distress was exclusively confined to the bladder. Dr. Nott, of Mobile, first sounded him. In February, 1864, Dr. Marable detected the calculus in the cystic cavity; then in April, same year, Drs. Whitefield, Buffington, Kyle, and Gilmore, all confirmed the existence of stone. In 1865, lastly Dr. Jackson, of Columbus, Mississippi, verified the same thing.

July, 1866, our patient visited the Springs already named, in this State, which have quite a reputation for dissolving urinary calculi. He estimates the quantity of gravel passed from his bladder, by these waters, at five table-spoonfuls, some of which he brought and placed at my disposal. Knowing well the importance involved in the question of the possibility of dissolving stone in the bladder, by the waters of certain springs, I immediately put into the hands of my friend and colleague, Dr. Joseph Jones, this supposed specimen of gravel, kept carefully in a well corked vial, and also the particles or fragments which were collected after the lithotriptic operation just performed within his bladder. No. 1, the analysis of the contents of the vial, is as follows: Mixture of Triple Phosphates, and Uric Acid, and Urates of Ammonia and Soda: Uric Acid in the form of high-colored lozenge-shaped crystals. Phosphates chiefly in prismatic crystals. Evidently deposited in successive layers upon side of chamber, from the urine after standing a length of time. Just such as is deposited at the close of a paroxysm of intermittent fever. This patient lives in the malarial region of the Mississippi bottom. No. 2 is that of the vesical calculus, which is chiefly Uric Acid, some cells and portions of tubuli uriniferi, and a small proportion of the phosphates. The differences in these two substances warrant the assertion that they could not have been derived from the same source. In their physical appearances they are quite distinct. The powder in the vial is *no gravel at all*; it is very light, porous, of a whitish-yellow color, presents brilliant dazzling scales, and crystals, but leaves no grit or sand when rubbed between the fingers. It floats on water, when mixed dissolves in it, and there is no deposit of gravel. There can be but little doubt that these deposits collected from the chamber-pots at watering places are due to spontaneous changes in the urine, promoted by long retention in the urinary vessels and by the summer heat; for during the winter months the manufacture of them ceases, the proprietors declare because the waters have become too weak, though not a drop of rain may have fallen. The benefit to health of these fashionable resorts is not

denied, nor the diluent, soothing influence by freely partaking of the waters, which may wash out many hurtful agents from the system, but cannot, we contend dissolve stone in the bladder. There are calculi, which disintegrate alone by the action of the air upon them, just as is being done daily by it on the rocks of which our State Capitol is built ; and there are cases in which the diuretic effect of cold springs will promote the discharge of even sand or gravel, but their action then is more mechanical than chemical. Of the many instances in which mineral waters have been tried to dissolve the stone, I have yet to learn the first successful case. This too, was the experience of the late Prof. A. H. Buchanan, whose patients like mine have been compelled regularly to make an annual visit during the summer to the springs in Macon county, many of whom found relief during the sojourn there, but have never been cured. Dr. Jones has done good service by exposing the manner, not to say trick, by which people are constantly deceived on the subject of so-called mineral waters dissolving stones in the bladder.

CASE III.—Bi-lateral Operation in an aged and fleshy gentleman, with enlarged Prostate—excellent Recovery.

MR. C—, is one of our most respectable citizens, and a distinguished artist. He is now 64 years of age, and had for years weighed 250 pounds. Until the war commenced he enjoyed excellent health, lived in a beautiful place near the city, exercised freely, and enjoyed life almost to perfect contentment.

The first symptom of urinary distress occurred during the winter of 1861-2. He then commenced passing gravel in the form of fine sand ; had his urine analyzed by Prof. Erni, now of Washington City, who announced to him that it contained too much free uric and oxalic acids. Tincture of Buchu was prescribed, but after using two bottles, he became quite sick, and was so for two or three weeks. No more gravel now passed, but symptoms of stone were experienced, gradually increasing in annoyance ; and then, too, an inguinal hernia formed, for which

he wore a truss. This patient first consulted me during the summer of 1866, when a foreign substance was readily detected in the bladder. His weight now was reduced to 220 pounds. He was placed on treatment preparatory to having the stone crushed. Owing to the enlargement of the prostate gland, the Lithotritor, Mercier's duck bill, a modification of Civiale, had to be introduced very far, deeply over the middle or third lobe of the prostate. A calculus measuring fifteen lines was taken up, and the full power of the hand applied, without avail, to break it. In the course of two weeks, another similar attempt was made, with no better success. At these manipulations I was kindly aided by Drs. Martin and Du Pré. A consultation with Drs. Thomas Maddin and Jennings was next held, when after deliberation it was decided that the bi-lateral operation should be performed. I was rather inclined to the high operation. During this meeting a stone was seized measuring only nine lines, when I declared this must be a second one, which was at once verified, by striking another calculus, while one was retained in the beak of the instrument. An attempt was also made to crush this smaller one, but it likewise failed. It was deemed imprudent in this case to use the power of the screw.

On the 15th of November, assisted by Drs. Maddin, Du Pré, Martin, Jones, and Mr. Dow, Medical Student, the bilateral section was made. The finger never was able to explore the bladder, its tip apparently entered just through the division made in the prostate gland. The largest stone was grasped by forceps, but all efforts at extracting it were unavailing, until by the force applied, it was broken into large fragments, when these, and a second smaller calculus were removed with forceps and scoop. The bladder was now well syringed, and the patient relieved from the position for lithotomy.

I am happy to state that Mr. C., after a week or two, when he required a few doses of medicine, has been fully restored to health. He says he feels as well as he ever did, takes his former exercise, and pursues his profession with remarkable vigor for

one of his years. He has never felt the least uneasiness about the bladder since the wound healed at the end of twenty days.

These are almost pure uric acid calculi, are of brick or iron rust color, and are nearly homogenous throughout. They resemble the west of Europe calculus, the large majority of which consist of uric acid.

CASE IV.—Bi-lateral operation in a negro boy---Calculus weighing two drachms.

This was the case of Cud-Joe, a negro boy aged 12, constitution good, and health excellent. He had had symptoms of stone for five years, and its presence revealed by sounding. His father, a worthy man, came with him, and after his return home, did not forget to renumerate the doctor, as those of a fairer skin too often do. The patient is from Williamson county, Tennessee.

The operation was performed on the 21st of November, and a calculus weighing about two drachms removed ; it was quite friable, and broke into several pieces during its extraction. The nucleus of it was unfortunately lost while passing it around the class. The fragments remaining in my possession are composed of the phosphates and oxalate, resembling the mulberry, having externally a nodulated structure.

This boy had a rapid recovery, returning home a week after the operation.

CASE 5th.—Bi-lateral Operation---a rough calculus weighing three drachms.

Wm. Howland, eight years old, was cut the next day, (the 22nd) for stone, with symptoms of which he had labored severely for a long period of his short life. He was now a poor, feeble, anaemic lad, having a quick irritable pulse ; smooth polished tongue ; irregular appetite ; dry skin ; and making frequent efforts to pass water, which was loaded with ropy mucus. The family physician, the venerable Dr. Robinson, of Rutherford county, kindly accompanied him. This was

another instance of the friable calculus, and was crushed in the forceps during its removal. It weighed three drachms, is quite rough and irregular on its surface. Its composition is uric acid and the phosphates.

The day after this, the patient had a slight chill, followed on the fourth by a severe paroxysm of intermitting fever. He was placed on quinine, to which, sulphate of iron was added in a day or two, and so far recovered that he left for home within two weeks. Dr. R. wrote to me on the 10th of December: "I never saw a smoother or handsomer cicatrix in my life. He has been kept confined since he came home, and has required scarcely any medicine. He is as pert as a cricket, as lively as a lark, and as talkative as a blue-jay."

CASE VI.—Bi-lateral Operation in a little boy—a large calculus extracted, having attached to it a strip of membrane.

On the 24th of this month, Wm. Dickson, from Hardin county, near the Tennessee river, was operated on. He is five years old, but in appearance, resembles a child of half this age. His mother says, that while an infant, she detected two gravels on his diapers. The specimen removed is a curious one. It weighed about two and half drachms, and is evidently constituted of a more recent addition to an older calculus. The first is of a dark mahogany color, and solid; the more recent structure looks very like fish-row eggs, aggregated upon it. It is composed of uric acid originally with the phosphates deposited upon it.

Another peculiarity in this operation is a strip of membrane, a portion of the lining of the bladder, adheres to one end of the stone. The patient had some fever developed within twenty-four hours after being operated on, but by the use of calomel and compound syrup of pink-root, he passed four large worms, (*Clumbracoides*,) when he began to improve, and left for home in ten days. The dry piece of mucous membrane is still united to this calculus, and is another fact to prove the adherence of these foreign bodies occasionally to the bladder. Nor did its severance

from this organ retard the cure of the case in the least. His father wrote me in December that he had entirely recovered.

CASE VII.—Bi-lateral Operation—large calculus from an adult—rapid recovery.

The calculus from this patient, is one of the handsomest in my collection of two hundred and forty-nine removed in eighty-nine operations. It weighs over two and a half ounces and measures six by four and seven-eighths of an inch in its circumference; is of a kidney shape; very hard; whitish in color; spangles and has a smooth glistening crystallized surface. It is the phosphate of lime, and remarkably compact.

The patient was twenty-five years old, a little under medium height, and came from Fayette county, forty miles this side of Memphis. The formation of this foreign body was so gradual and imperceptible, that he cannot tell the exact time of its commencement, but from his earliest recollection, he thinks there has been some trouble in urinating.

Mr. Gober suffered so little, that in 1861 he volunteered in a Tennessee Regiment, and served in the field nearly three years, when a stone in the bladder having been detected, at Marietta Georgia, he was detailed for light duty. Since the war, by severe exercise, his urine became bloody, and deposited mucus. He is now generally compelled to urinate three or four times every night.

The operation was performed the 8th of December, before the class. The section made was as near median as possible, just so large as to introduce the fore finger, then by dilatation, and gently, but gradually increasing, and varying the direction of, the traction, the large stone was removed through it.

This patient made an excellent recovery. Within two weeks he was, of his own accord, out on the streets, and greeted his friends and relations at his home on Christmas day.

Within a few days, I read in the March No. of the Cincinnati Journal of Medicine, that Dr. B. J. Raphael of New York City,

is expected to make a report to the American Medical Association on the Comparative Merits of the Different Operations for Extraction of Vesical Calculi. I have fortunately preserved the statistics in full of *seventy-seven* cases of the bi-lateral operation for stone. I have the date, age, sex, race, method of operation, number of calculi, and result. I have also performed the lateral, high, urethral, or vaginal section, lithotrity, and employed dilatation. In every instance where the result was fatal, I have not hesitated to publish the full particulars, and these are now before the profession.

While the mortality in the supra-pubic operation has been one in two cases, and in the lateral one in three, by the bi-lateral, it has been less than one in eighteen. This includes every death, whether the case was favorable, or unfavorable. I have never declined to operate whenever there was a reasonable hope of benefitting the patient; but I do consider it perfectly right and fair, that in arriving at safe and proper conclusions, in the statistics of any operation, deduction should be made for desperate cases or unusual complications developed during its performance. I now know that in two or three of my cases no active procedure should have been attempted. The whole number of deaths is here given by each method, but if the above rule is correct, then the mortality in my high operation would be nothing, for they amounted to only two cases, and in the fatal one, the size, and shape of the stone, and condition of the patient, rendered success almost impossible; and in the lateral, but one of the three was due, I still believe, without a doubt, to the operation. It was performed during the war when I was deprived of instruments, and used the gorget.

By omitting the unfavorable cases in those cut bi-laterally, the mortality will amount to two or three in the *seventy-seven* cases, or about one in thirty. Sixty-nine of this number had a speedy recovery. This is not now claimed, but the minute history of these cases may shortly be published when the profession can judge for itself.

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